

IN THE CLAIMS

Please amend the claims as follows:

1. – 2. (Canceled)

3. (Currently Amended) ~~The method defined in Claim 1~~ A method comprising:
decomposing input data into a plurality of code-blocks;
assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders
for coding the plurality of code-blocks in parallel so that the number of coefficients coded by
each of the plurality of MQ coders is approximately the same, to the extent possible, when
assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first,
second, third, and fourth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, HL₂,
LH₂, HH₂, HL₁ and HH₁ luminance subbands;

the second MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃,
HL₂, LH₂, HH₂, HL₁ and HH₁ subbands of a first set of chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, HL₂,
LH₂, HH₂, HL₁ and HH₁ subbands of a second set of chrominance subbands; and

the fourth MQ coder is assigned code-blocks corresponding to a LH₁ luminance subband,
a LH₁ subband of the first set of chrominance subbands, and LH₁ subband of the second set of
chrominance subbands.

4. (Original) The method defined in Claim 3 wherein the plurality of code-blocks is 4:4:4 data.

5. (Currently Amended) ~~The method defined in Claim 1~~ A method comprising:
decomposing input data into a plurality of code-blocks;
assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders
for coding the plurality of code-blocks in parallel so that the number of coefficients coded by
each of the plurality of MQ coders is approximately the same, to the extent possible, when
assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first,
second, third, fourth, fifth, and sixth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , HH_2 , and HH_1 luminance subbands;

the second MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 , HH_2 , and HH_1 subbands of a first set of chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 , HH_2 , and HH_1 subbands of a second set of chrominance subbands;

the fourth MQ coder is assigned code-blocks corresponding to HL_1 and LH_1 luminance subbands;

the fifth MQ coder is assigned code-blocks corresponding to HL_1 and LH_1 subbands of the first set of chrominance subbands; and

the sixth MQ coder is assigned code-blocks corresponding to a HL_1 and LH_1 subbands of the second set of chrominance subbands.

6. (Original) The method defined in Claim 5 wherein the plurality of code-blocks is 4:4:4 data.

7. (Currently Amended) ~~The method defined in Claim 1~~ A method comprising:
decomposing input data into a plurality of code-blocks;
assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders
for coding the plurality of code-blocks in parallel so that the number of coefficients coded by
each of the plurality of MQ coders is approximately the same, to the extent possible, when
assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first,
second, third, fourth, fifth, sixth, seventh, and eighth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3
luminance subbands and an HL_1 subband of a first set of chrominance subbands;

the second MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3
subbands of the first set of chrominance subbands and a HL_1 subband of a second set of
chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , LH_2
and LH_1 subbands of the second set of chrominance subbands;

the fourth MQ coder is assigned code-blocks corresponding to LH_2 , HH_2 and LH_1
luminance subbands;

the fifth MQ coder is assigned code-blocks corresponding to LH_2 and HH_1 luminance
subbands and a LH_2 subband of the first set of chrominance subbands;

the sixth MQ coder is assigned code-blocks corresponding to a LH_1 luminance subband
and LH_2 and HH_2 subbands of the first set of chrominance subbands;

the seventh MQ coder is assigned code-blocks corresponding to a LH_1 subband of the first set of chrominance subbands and LH_2 and HH_2 subbands of the second set of chrominance subbands; and

the eighth MQ coder is assigned code-blocks corresponding to a HH_1 subband of the first set of chrominance subbands and a HH_1 subband of the second set of chrominance subbands.

8. (Original) The method defined in Claim 7 wherein the plurality of code-blocks is 4:4:4 data.

9. (Currently Amended) ~~The method defined in Claim 1~~ A method comprising:
decomposing input data into a plurality of code-blocks;
assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders
for coding the plurality of code-blocks in parallel so that the number of coefficients coded by
each of the plurality of MQ coders is approximately the same, to the extent possible, when
assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first, second, third, and fourth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 , HH_2 , and HH_1 luminance subbands;

the second MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 , HH_2 , and HL_1 subbands of a first set of chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 , HH_2 , and HL_1 subbands of a second set of chrominance subbands; and

the fourth MQ coder is assigned code-blocks corresponding to HL_1 and LH_1 luminance subbands.

10. (Original) The method defined in Claim 9 wherein the plurality of code-blocks is 4:2:2 data.

11. (Currently Amended) ~~The method defined in Claim 1~~ A method comprising:
decomposing input data into a plurality of code-blocks;
assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders
for coding the plurality of code-blocks in parallel so that the number of coefficients coded by
each of the plurality of MQ coders is approximately the same, to the extent possible, when
assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first,
second, third, fourth, fifth, and sixth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL_3 , LH_3 , HL_2 , LH_2 , HH_2 luminance subbands and a LH_2 subband of a first set of chrominance subbands;

the second MQ coder is assigned code-blocks corresponding to LL_3 , LH_3 , and HH_2 subbands of a second set of chrominance subbands and a HH_1 luminance subband;

the third MQ coder is assigned code-blocks corresponding to LL_3 , LH_3 , and LH_2 subbands of the first set of chrominance subbands and a HL_1 subband of the second set of chrominance subbands;

the fourth MQ coder is assigned code-blocks corresponding to a HL_3 , HH_3 and LH_1 luminance subbands and a LH_2 subband of the second set of chrominance subbands;

the fifth MQ coder is assigned code-blocks corresponding to a LH_1 luminance subband and LH_3 , HH_3 and LH_2 subbands of the second set of chrominance subbands;

the sixth MQ coder is assigned code-blocks corresponding to a HL_3 , HH_3 , HH_2 , and HL_1 subbands of the first set of chrominance subbands.

12. (Original) The method defined in Claim 11 wherein the plurality of code-blocks is 4:2:2 data.

13. (Currently Amended) ~~The method defined in Claim 1~~ A method comprising:
decomposing input data into a plurality of code-blocks;
assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders
for coding the plurality of code-blocks in parallel so that the number of coefficients coded by
each of the plurality of MQ coders is approximately the same, to the extent possible, when
assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first,
second, third, fourth, fifth, sixth, seventh, and eighth MQ coders, wherein
the first MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, HL₂,
LH₂, and HH₂ luminance subbands;
the second MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃,
HL₂, LH₂ and HH₂ subbands of a first set of chrominance subbands;
the third MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, HL₂,
LH₂, and HH₂ subbands of a second set of chrominance subbands;
the fourth MQ coder is assigned code-blocks corresponding to a HL₁ luminance subband;
the fifth MQ coder is assigned code-blocks corresponding to a LH₁ luminance subband;
the sixth MQ coder is assigned code-blocks corresponding to a HH₁ luminance subband;
the seventh MQ coder is assigned code-blocks corresponding to a HL₁ subband of the
first set of chrominance subbands;
the eighth MQ coder is assigned code-blocks corresponding to a HL₁ subband of the
second set of chrominance subbands.

14. (Original) The method defined in Claim 13 wherein the plurality of code-blocks is 4:2:2 data.

15. (Currently Amended) ~~The method defined in Claim 1~~ A method comprising:
decomposing input data into a plurality of code-blocks;
assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders
for coding the plurality of code-blocks in parallel so that the number of coefficients coded by
each of the plurality of MQ coders is approximately the same, to the extent possible, when
assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first,
second, third, and fourth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, HH₂,
and HL₁ luminance subbands;

the second MQ coder is assigned code-blocks corresponding to HH₁ luminance subband
and LL₃, HL₃, LH₃, HH₃, and HH₂ subbands of a first set of chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to a LH₁ luminance subband
and LL₃, HL₃, LH₃, HH₃, and HH₂ subbands of a second set of chrominance subbands; and

the fourth MQ coder is assigned code-blocks corresponding to HL₂ and LH₂ luminance
subbands, HL₂ and LH₂ subbands of the first set of chrominance subbands, and HL₂ and LH₂
subbands of the second set of chrominance subbands.

16. (Original) The method defined in Claim 15 wherein the plurality of code-blocks is 4:1:1 data.

17. (Currently Amended) ~~The method defined in Claim 1~~ A method comprising:
decomposing input data into a plurality of code-blocks;
assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders
for coding the plurality of code-blocks in parallel so that the number of coefficients coded by
each of the plurality of MQ coders is approximately the same, to the extent possible, when
assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first,
second, third, fourth, fifth, and sixth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 and HH_2 luminance subbands;

the second MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 and HH_2 subbands of a first set of chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 and HH_2 subbands of a second set of chrominance subbands;

the fourth MQ-coder is assigned code-blocks corresponding to a HL_1 luminance subband;

the fifth MQ coder is assigned code-blocks corresponding to a LH_1 luminance subband;

and

the sixth MQ coder is assigned code-blocks corresponding to a HH_1 luminance subband.

18. (Original) The method defined in Claim 17 wherein the plurality of code-blocks is 4:1:1 data.

19. (Currently Amended) ~~The method defined in Claim 1~~ A method comprising:
decomposing input data into a plurality of code-blocks;

assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders for coding the plurality of code-blocks in parallel so that the number of coefficients coded by each of the plurality of MQ coders is approximately the same, to the extent possible, when assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first, second, third, fourth, fifth, sixth, seventh, and eighth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , and HH_2 luminance subbands;

the second MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , and HH_2 subbands of a first set of chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 and HH_2 subbands of a second set of chrominance subbands;

the fourth MQ coder is assigned code-blocks corresponding to a HL_2 luminance subband, a HL_2 subband of the first set of chrominance subbands, and a HL_2 subband of the second set of chrominance subbands;

the fifth MQ coder is assigned code-blocks corresponding to a LH_2 luminance subband, a LH_2 subband of the first set of chrominance subbands, and a LH_2 subband of the second set of chrominance subbands;

the sixth MQ coder is assigned code-blocks corresponding to a LH_1 luminance subband;

the seventh MQ-coder is assigned code-blocks corresponding to a HL_1 luminance subband;

the eighth MQ coder is assigned code-blocks corresponding to a HH_1 luminance subband.

20. (Original) The method defined in Claim 19 wherein the plurality of code-blocks is 4:1:1 data.

21. – 22. (Canceled)

23. (Currently Amended) ~~The apparatus defined in Claim 21~~ An apparatus comprising:

means for decomposing input data into a plurality of code-blocks;

means for assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders for coding the plurality of code-blocks in parallel so that the number of coefficients coded by each of the plurality of MQ coders is approximately the same, to the extent possible when assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first, second, third, and fourth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, HL₂, LH₂, HH₂, HL₁ and HH₁ luminance subbands;

the second MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, HL₂, LH₂, HH₂, HL₁ and HH₁ subbands of a first set of chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, HL₂, LH₂, HH₂, HL₁ and HH₁ subbands of a second set of chrominance subbands; and

the fourth MQ coder is assigned code-blocks corresponding to a LH₁ luminance subband, a LH₁ subband of the first set of chrominance subbands, and LH₁ subband of the second set of chrominance subbands.

24. (Original) The apparatus defined in Claim 23 wherein the plurality of code-blocks is 4:4:4 data.

25. (Currently Amended) ~~The apparatus defined in Claim 21~~ An apparatus comprising:
- means for decomposing input data into a plurality of code-blocks;
 - means for assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders for coding the plurality of code-blocks in parallel so that the number of coefficients coded by each of the plurality of MQ coders is approximately the same, to the extent possible when assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first, second, third, fourth, fifth, and sixth MQ coders, wherein
 - the first MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , HH_2 , and HH_1 luminance subbands;
 - the second MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 , HH_2 , and HH_1 subbands of a first set of chrominance subbands;
 - the third MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 , HH_2 , and HH_1 subbands of a second set of chrominance subbands;
 - the fourth MQ coder is assigned code-blocks corresponding to HL_1 and LH_1 luminance subbands;
 - the fifth MQ coder is assigned code-blocks corresponding to HL_1 and LH_1 subbands of the first set of chrominance subbands; and
 - the sixth MQ coder is assigned code-blocks corresponding to a HL_1 and LH_1 subbands of the second set of chrominance subbands.

26. (Original) The apparatus defined in Claim 25 wherein the plurality of code-blocks is 4:4:4 data.

27. (Currently Amended) ~~The apparatus defined in Claim 21~~ An apparatus comprising:

means for decomposing input data into a plurality of code-blocks;

means for assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders for coding the plurality of code-blocks in parallel so that the number of coefficients coded by each of the plurality of MQ coders is approximately the same, to the extent possible when assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first, second, third, fourth, fifth, sixth, seventh, and eighth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 luminance subbands and an HL_1 subband of a first set of chrominance subbands;

the second MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 subbands of the first set of chrominance subbands and a HL_1 subband of a second set of chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , LH_2 and LH_1 subbands of the second set of chrominance subbands;

the fourth MQ coder is assigned code-blocks corresponding to LH_2 , HH_2 and LH_1 luminance subbands;

the fifth MQ coder is assigned code-blocks corresponding to LH_2 and HH_1 luminance subbands and a LH_2 subband of the first set of chrominance subbands;

the sixth MQ coder is assigned code-blocks corresponding to a LH_1 luminance subband and LH_2 and HH_2 subbands of the first set of chrominance subbands;

the seventh MQ coder is assigned code-blocks corresponding to a LH_1 subband of the first set of chrominance subbands and LH_2 and HH_2 subbands of the second set of chrominance subbands; and

the eighth MQ coder is assigned code-blocks corresponding to a HH₁ subband of the first set of chrominance subbands and a HH₁ subband of the second set of chrominance subbands.

28. (Original) The apparatus defined in Claim 27 wherein the plurality of code-blocks is 4:4:4 data.

29. (Currently Amended) ~~The apparatus defined in Claim 21~~ An apparatus comprising:
means for decomposing input data into a plurality of code-blocks;
means for assigning the plurality of code-blocks, on a code-block basis, to a plurality of
MQ coders for coding the plurality of code-blocks in parallel so that the number of coefficients
coded by each of the plurality of MQ coders is approximately the same, to the extent possible
when assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first, second, third, and fourth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, HL₂, LH₂, HH₂, and HH₁ luminance subbands;

the second MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, HL₂, LH₂, HH₂, and HL₁ subbands of a first set of chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, HL₂, LH₂, HH₂, and HL₁ subbands of a second set of chrominance subbands; and

the fourth MQ coder is assigned code-blocks corresponding to HL₁ and LH₁ luminance subbands.

30. (Original) The apparatus defined in Claim 29 wherein the plurality of code-blocks is 4:2:2 data.

31. (Currently Amended) ~~The apparatus defined in Claim 21~~ An apparatus comprising:

means for decomposing input data into a plurality of code-blocks;

means for assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders for coding the plurality of code-blocks in parallel so that the number of coefficients coded by each of the plurality of MQ coders is approximately the same, to the extent possible when assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first, second, third, fourth, fifth, and sixth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL₃, LH₃, HL₂, LH₂, HH₂ luminance subbands and a LH₂ subband of a first set of chrominance subbands;

the second MQ coder is assigned code-blocks corresponding to LL₃, LH₃, and HH₂ subbands of a second set of chrominance subbands and a HH₁ luminance subband;

the third MQ coder is assigned code-blocks corresponding to LL₃, LH₃, and LH₂ subbands of the first set of chrominance subbands and a HL₁ subband of the second set of chrominance subbands;

the fourth MQ coder is assigned code-blocks corresponding to a HL₃, HH₃ and LH₁ luminance subbands and a LH₂ subband of the second set of chrominance subbands;

the fifth MQ coder is assigned code-blocks corresponding to a LH₁ luminance subband and LH₃, HH₃ and LH₂ subbands of the second set of chrominance subbands;

the sixth MQ coder is assigned code-blocks corresponding to a HL₃, HH₃, HH₂, and HL₁ subbands of the first set of chrominance subbands.

32. (Original) The apparatus defined in Claim 31 wherein the plurality of code-blocks is 4:2:2 data.

33. (Currently Amended) ~~The apparatus defined in Claim 21~~ An apparatus comprising:
means for decomposing input data into a plurality of code-blocks;
means for assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders for coding the plurality of code-blocks in parallel so that the number of coefficients coded by each of the plurality of MQ coders is approximately the same, to the extent possible when assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first, second, third, fourth, fifth, sixth, seventh, and eighth MQ coders, wherein
the first MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 , and HH_2 luminance subbands;
the second MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 and HH_2 subbands of a first set of chrominance subbands;
the third MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 , and HH_2 subbands of a second set of chrominance subbands;
the fourth MQ coder is assigned code-blocks corresponding to a HL_1 luminance subband;
the fifth MQ coder is assigned code-blocks corresponding to a LH_1 luminance subband;
the sixth MQ coder is assigned code-blocks corresponding to a HH_1 luminance subband;
the seventh MQ coder is assigned code-blocks corresponding to a HL_1 subband of the first set of chrominance subbands;

the eighth MQ coder is assigned code-blocks corresponding to a HL_1 subband of the second set of chrominance subbands.

34. (Original) The apparatus defined in Claim 33 wherein the plurality of code-blocks is 4:2:2 data.

35. (Currently Amended) ~~The apparatus defined in Claim 21~~ An apparatus comprising:
means for decomposing input data into a plurality of code-blocks;
means for assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders for coding the plurality of code-blocks in parallel so that the number of coefficients coded by each of the plurality of MQ coders is approximately the same, to the extent possible when assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first, second, third, and fourth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HH_2 , and HL_1 luminance subbands;

the second MQ coder is assigned code-blocks corresponding to HH_1 luminance subband and LL_3 , HL_3 , LH_3 , HH_3 , and HH_2 subbands of a first set of chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to a LH_1 luminance subband and LL_3 , HL_3 , LH_3 , HH_3 , and HH_2 subbands of a second set of chrominance subbands; and

the fourth MQ coder is assigned code-blocks corresponding to HL_2 and LH_2 luminance subbands, HL_2 and LH_2 subbands of the first set of chrominance subbands, and HL_2 and LH_2 subbands of the second set of chrominance subbands.

36. (Original) The apparatus defined in Claim 35 wherein the plurality of code-blocks is 4:1:1 data.

37. (Currently Amended) ~~The apparatus defined in Claim 21~~ An apparatus comprising:
means for decomposing input data into a plurality of code-blocks;
means for assigning the plurality of code-blocks, on a code-block basis, to a plurality of MQ coders for coding the plurality of code-blocks in parallel so that the number of coefficients coded by each of the plurality of MQ coders is approximately the same, to the extent possible when assigning code-blocks on a code block basis, wherein the plurality of MQ coders comprises first, second, third, fourth, fifth, and sixth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 and HH_2 luminance subbands;

the second MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 and HH_2 subbands of a first set of chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to LL_3 , HL_3 , LH_3 , HH_3 , HL_2 , LH_2 and HH_2 subbands of a second set of chrominance subbands;

the fourth MQ-coder is assigned code-blocks corresponding to a HL_1 luminance subband;

the fifth MQ coder is assigned code-blocks corresponding to a LH_1 luminance subband;

and

the sixth MQ coder is assigned code-blocks corresponding to a HH_1 luminance subband.

38. (Original) The apparatus defined in Claim 37 wherein the plurality of code-blocks is 4:1:1 data.

39. (Currently Amended) ~~The apparatus defined in Claim 21~~ An apparatus comprising:
means for decomposing input data into a plurality of code-blocks;
means for assigning the plurality of code-blocks, on a code-block basis, to a plurality of
MQ coders for coding the plurality of code-blocks in parallel so that the number of coefficients
coded by each of the plurality of MQ coders is approximately the same, to the extent possible
when assigning code-blocks on a code block basis, wherein the plurality of MQ coders

comprises first, second, third, fourth, fifth, sixth, seventh, and eighth MQ coders, wherein

the first MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, and HH₂ luminance subbands;

the second MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃, and HH₂ subbands of a first set of chrominance subbands;

the third MQ coder is assigned code-blocks corresponding to LL₃, HL₃, LH₃, HH₃ and HH₂ subbands of a second set of chrominance subbands;

the fourth MQ coder is assigned code-blocks corresponding to a HL₂ luminance subband, a HL₂ subband of the first set of chrominance subbands, and a HL₂ subband of the second set of chrominance subbands;

the fifth MQ coder is assigned code-blocks corresponding to a LH₂ luminance subband, a LH₂ subband of the first set of chrominance subbands, and a LH₂ subband of the second set of chrominance subbands;

the sixth MQ coder is assigned code-blocks corresponding to a LH₁ luminance subband;

the seventh MQ-coder is assigned code-blocks corresponding to a HL₁ luminance subband;

the eighth MQ coder is assigned code-blocks corresponding to a HH_1 luminance subband.

40. (Original) The apparatus defined in Claim 39 wherein the plurality of code-blocks is 4:1:1 data.